

What is claimed is:

1. An OFDM reception apparatus that receives frequency hopping OFDM signals sent from a plurality of cells,  
5 comprising:

an extraction section that extracts pilot signals from respective subcarriers of said frequency hopping OFDM signals;

10 an interference power calculation section that calculates interference part power and non-interference part power from the pilot signals extracted by said extraction section and calculates interference power for each symbol based on said interference part power and non-interference part power; and

15 a decoding section that decodes symbols of said respective subcarriers based on the interference power calculated for each symbol by said interference power calculation section.

20 2. The OFDM reception apparatus according to claim 1, wherein said decoding section calculates a variance value used for said decoding based on the interference power for each said symbol and decodes symbols of said respective subcarriers using said variance value.

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3. An OFDM reception apparatus that carries out diversity reception of frequency hopping OFDM signals sent from a plurality of cells using a plurality of antennas,

comprising:

an extraction section that extracts pilot signals from subcarriers of the respective frequency hopping OFDM signals received by said respective antennas;

5 an interference power calculation section that calculates interference part power and non-interference part power for each pilot signal extracted by said extraction section and calculates interference power for each symbol based on said interference part power and  
10 non-interference part power;

a power ratio calculation section that calculates a signal to interference power ratio for each pilot signal extracted by said extraction section;

a combination ratio calculation section that  
15 calculates a combination ratio of received signals of said respective antennas based on the signal to interference power ratio for each said symbol calculated by said power ratio calculation section; and

a decoding section that decodes symbols of each said  
20 subcarrier based on the interference power for each said symbol calculated by said interference power calculation section and the combination ratio of the respective received signals calculated by said combination ratio calculation section.

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4. The OFDM reception apparatus according to claim 3, wherein said combination ratio calculation section calculates weight values to determine a combination ratio

of received signals of said respective antennas based on a signal to interference power ratio for each said symbol,

said decoding section calculates a variance value  
5 used for said decoding based on a weight value that determines a combination ratio between interference power for each said symbol and the respective received signals calculated by said combination ratio calculation section and decodes symbols of said respective subcarriers using  
10 said variance value.

5. An OFDM reception method for receiving frequency hopping OFDM signals sent from a plurality of cells, comprising:

15 an extraction step of extracting pilot signals of respective subcarriers of said frequency hopping OFDM signals;

an interference power calculation step of calculating interference part power and non-interference  
20 part power from said extracted pilot signals and calculating interference power for each symbol based on said interference part power and non-interference part power; and

a decoding step of decoding symbols of each said  
25 subcarrier based on said calculated interference power for each symbol.

6. An OFDM reception method for carrying out diversity

reception of frequency hopping OFDM signals sent from a plurality of cells by a plurality of antennas, comprising:

an extraction step of extracting pilot signals from  
5 subcarriers of the respective frequency hopping OFDM signals received from said respective antennas;

an interference power calculation step of calculating interference part power and non-interference part power for each said extracted pilot signal and  
10 calculating interference power for each symbol based on said interference part power and non-interference part power;

a power ratio calculation step of calculating a signal to interference power ratio for each said extracted  
15 pilot signal;

a combination ratio calculation step of calculating a combination ratio of the received signals of said respective antennas based on said calculated signal to interference power ratio for each said symbol; and

20 a decoding step of decoding symbols of each said subcarrier based on said calculated interference power for each said symbol and said calculated combination ratio of the respective received signals.